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THOMAS ERIC PEET

'Dethe by thy dethe hath harm irreparable
Unto us done.'

Of Professor Peet's eminence as a scholar, as an archaeologist, and as a teacher it should be easy to write at length; as also of the sound judgment and the zealous and meticulous care that he displayed as Editor of this journal ever since it began a new career in 1921 after the break caused by the war; qualities which, as has been made plain to me during the years in which it has been my privilege to help him, have been the real source of any reputation that the *Annals* may have won. It should be easy to write of these things, but to me the due words will not come easily, since the distinction and learning which in his life were my admiration now seem of little account beside the cruel fact that a sharp end has been put to the unclouded friendship of twenty-seven years: a friendship begun at Athens and Sparta, cemented in Egypt, and for the last twelve years growing ever deeper in close companionship in the Liverpool Institute of Archaeology.

So unassuming that it was easy to forget his capacity until his close grasp of the matter in hand compelled the recollection, hard-working to a degree that often shamed his fellows, and full of zest for the business of the moment whether work or play, his outstanding quality to me was his supreme competence in all his many activities. The secret of his mastery was, I think, this, that great as were his gifts they were no greater than his industry, so that he never relied on his gifts alone without that painstaking preparation which is the half of genius. It was this passion for painstaking thoroughness, I think, rather than any philological yearnings, that led him, when as a young man he turned to Egyptian archaeology, not to be content to be an Egyptian archaeologist; for he saw in the Egyptian language the one indispensable tool for the building of any edifice of new knowledge in Egyptology, and so set himself determinedly to master its use. The European reputation that he achieved shows that in the linguistic labours of his later years his great abilities had found their fit and proper field.

As an archaeologist no man could ever assess better than he the value of evidence. He had a mind always open to the appeal of facts—it has been rightly said of him that he distrusted imagination—and he never sought to bolster up a theory just because it was his theory.

Withal he was a great gentleman, one whose sense of the right thing never failed him—a man who did many kindnesses and never said an unkind word; which is not to say that he could not be rightfully severe on the pretentious and the shoddy.

Quo desiderio veteres renovamus amores
Atque olim missas flemus amicitias.

J. P. Droop.

MEDIAEVAL POTTERY AND KILN AT ASHTON, NEAR CHESTER

By R. NEWSTEAD

WITH PLATES I–VI

The chance discovery by Mr. G. B. Leach of a mediaeval potter's kiln in his garden at Ashton, near Chester, makes an interesting and useful contribution to our very scanty knowledge of the ceramic art of that period. The discovery was made in October 1933 in digging for a post-hole, when a number of potsherds were unearthed. The sherds were shortly afterwards brought to me for determination; when, judging by the distorted nature of some of the pieces, I thought that they must have belonged to vessels damaged in the process of baking; that they had been treated by the potter as throw-outs; and that the site of a kiln could not be far away.

Mr. Leach immediately commenced an exploration of the site, aided by his young friend Mr. M. H. Ridgeway, with the result that the foundations of the potter's kiln and much of the superstructure which had collapsed were discovered close by the spot where the first lot of potsherds was unearthed. The wealth of broken pottery which the excavations subsequently revealed was simply astounding—there were literally thousands of fragments, the majority of which came from the fallen superstructure of the kiln. Having completed the exploration of the kiln, Mr. Leach then gave his attention to the heavy task of cleaning and registering the broken vessels. As this work proceeded the material was passed on to me for fixing and restoration, with the result that thirty vessels, chiefly jugs and pitchers, have now been reconstructed. These collectively form one of the most interesting series of mediaeval pottery brought to light in recent years. All archaeologists will congratulate Mr. Leach on his discovery, and thank him for the care and interest he has taken in exploring this rare relic of the past.

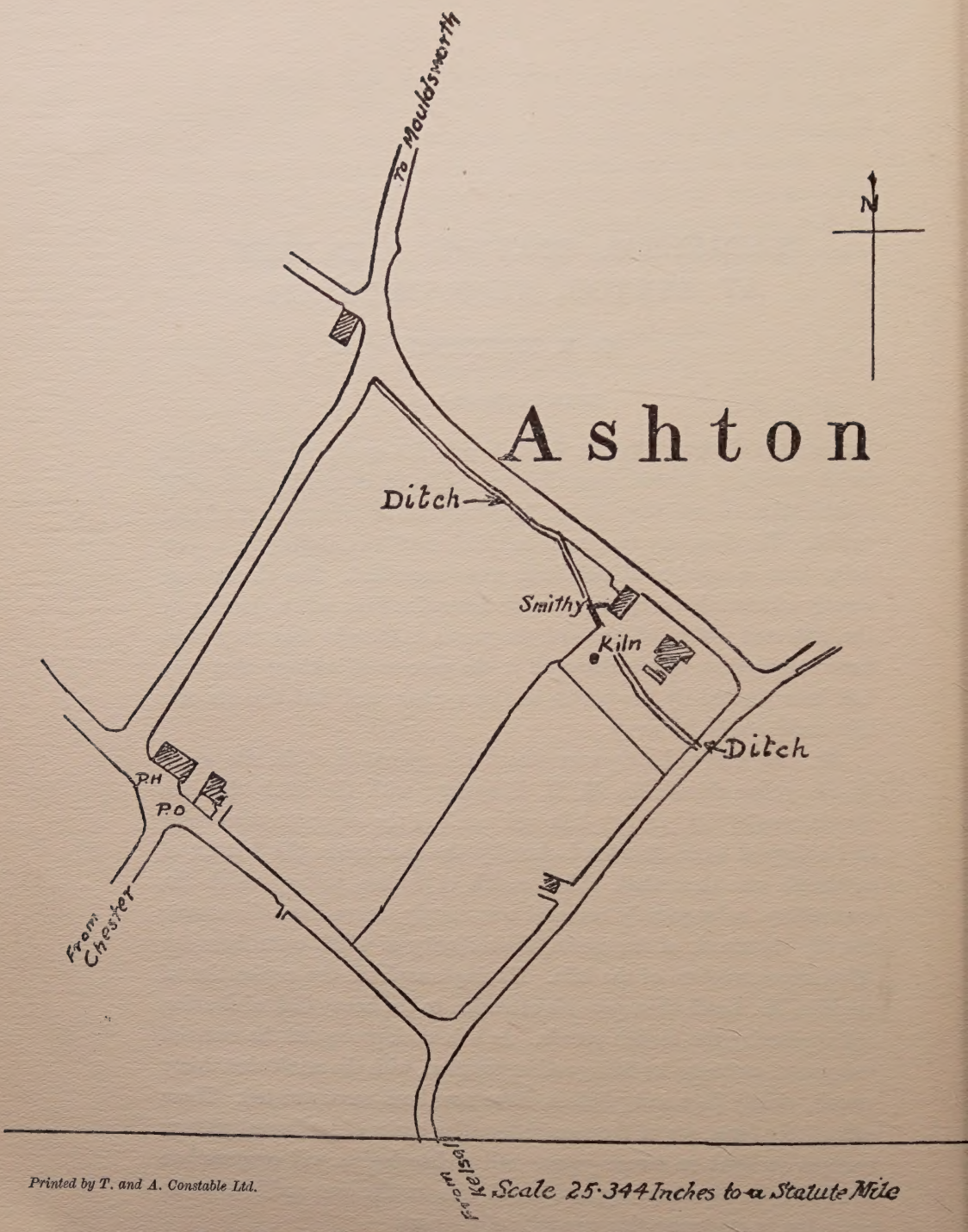


Fig. 1.—Plan of Ashton, Cheshire, showing position of mediaeval kiln.
Based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.

The village of Ashton in which the kiln was discovered lies on the outskirts of Delamere Forest, and about eight miles in a north-easterly direction from Chester. Its altitude is about 100 feet above sea-level, and its geological formation that of the Triassic System, capped by the Red Marls so characteristic of the mid-Cheshire region. A ditch, which at times takes the nature of a small stream, passes close by the kiln on the NE. side, and after passing the old smithy follows the line of the road leading to Mouldsworth for a short distance, then westwards, presumably to join Ashton Brook not far away. That section of the ditch which passes through Mr. Leach's garden was, however, piped in a few years ago, but its original course is clearly shown in the Ordnance Survey (site plan, Text Fig. 1) which we have been permitted to reproduce by H.M. Director General.

The site chosen by the mediaeval potters was therefore an ideal one, with water and clay close at hand, and also a forest of timber from which they could obtain an abundance of fuel to bake their wares.

There seems to be very little history connected with the village, but Coward (1932) says that Ashton had certain privileges denied to some owners whose manors were within the Forest bounds. In or about 1320 the Prince of Wales, who was of course also Earl of Chester, allowed Oliver de Burdegalia, his wife Matilda, and his 'Assheton' tenants to run their cattle in the Forest of 'Mere' or 'Mara,' and to enclose for cultivation such forest land as was within the manorial boundaries. Here is a peep into the history of the past, at or about the time, presumably, when our potters were engaged in the manufacture of their wares.

THE KILN

Plate I and Text Figs. 1, 2

The kiln was somewhat oval in outline, measuring 7 ft. 6 in. by 7 ft. All that actually remained of the structure consisted of little more than the foundations of the furnace proper. The superstructure had evidently collapsed ages ago, completely burying and preserving the sub-lying foundations.

The stoke-hole or mouth of the furnace (E. on plan and photograph) was placed on the SE. side of the structure, with an opening of about 17 in.; surrounding this and extending beyond it for some distance

was a compact mass of charcoal including remains of oak and birch, also some bits of pottery. On the opposite side were two flues: one running west (C), the other north (D), respectively. The walls of the latter were badly broken; those in the other flue (C) in a fair state of preservation. The wall on the SW. side, though but 3 or 4 inches thick, was in a very good state of preservation, due evidently to the fact that it had been plastered against the quarried-out face of the soft rock.[1] The wall on the opposite side of the kiln had slipped outwards slightly, and the wall immediately E. of the furnace opening had gone. Following the line of the wall all round the interior of the furnace was a shallow gutter with an average width of 8 inches, the function of which is obscure. The floor of the furnace rested for the most part on the soft rock; it gave an average thickness of 4 inches in the section AB (Text Fig. 2), and was composed of puddled clay with a few bits of potsherds and thin tiles added to its composition. The whole of the superstructure had evidently been built of clay reinforced with potsherds belonging to vessels which, for the most part, had been distorted in firing, treated as throw-outs, and broken up for use as concrete. Here and there were also a few bits of thin flat tiles, and one large pitcher (Pl. IV, No. 6), almost complete, had been placed upright by the wall on the NE. side of the feed-hole to the furnace. When completed the whole kiln had evidently been fired *in situ* from within into one solid structure. Vidler (1932) found the potters' kilns at Rye to have been constructed in a similar way—that is, with clay reinforced with 'broken tiles, stones and pots, some of the latter being quite whole'; and that they were 'baked by fires kindled within into one homogenous structure.' Droop and Newstead (1931) suggested that this method had also been adopted in the construction of the fourteenth-century kiln which they found built on the floor of one of the Roman barrack rooms at Chester.

What our kiln was like in its completeness is impossible to say, as no exact parallel can at present be traced. It differs in its general form from those found at Rye (Vidler, 1932) by being oval in form, and also apparently in having no central pier for supporting the floor of the baking chamber. It is possible or even probable, however, that a central pier or wall may have existed originally, and that it had collapsed

1. Known locally as 'fox bench' or 'roach.'

and got mixed up with the fallen material of the superstructure, leaving no trace of its whereabouts.

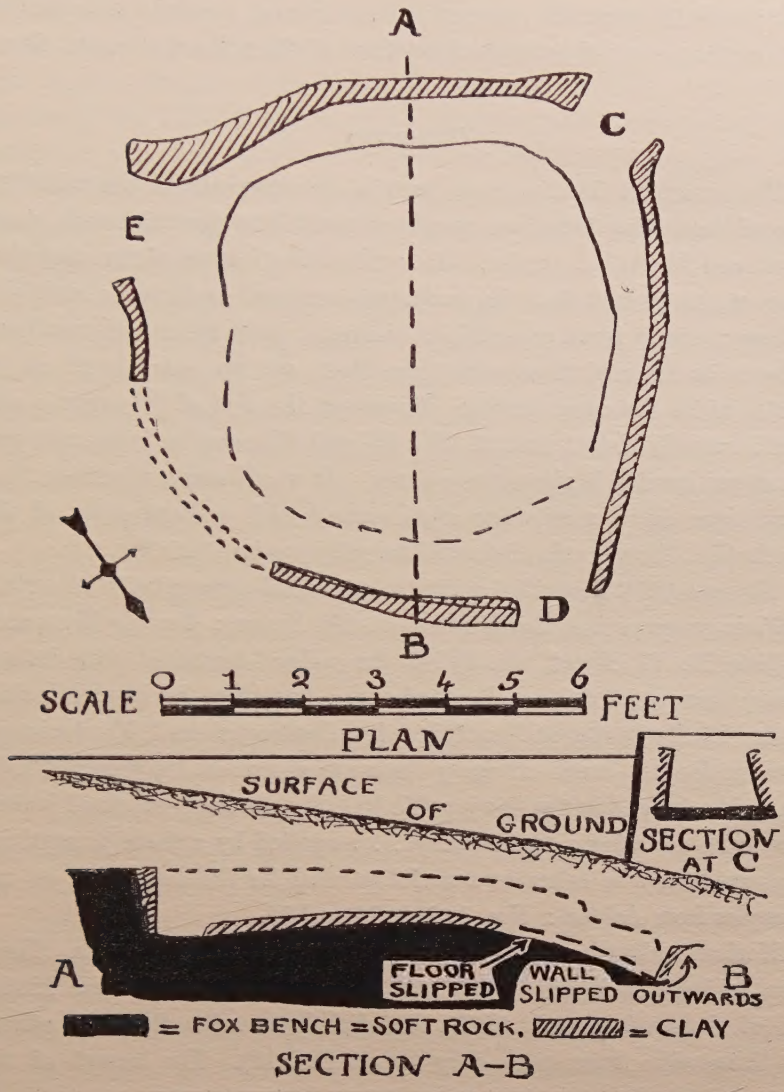


Fig. 2.—Plan and Sections of mediaeval kiln.

Dating.—From a study of the vessels it seems clear that they belong either to the fourteenth or fifteenth century. Obviously, however, the forms and decoration of the majority of the examples point conclusively to the earlier rather than the later period. One thing seems quite clear,

that they all belong to one very short period—a decade at most; their definite stratification in the burnt clay of the structure makes this quite clear; and although the stratum was not sealed, a careful examination of its surface revealed no trace of any form of disturbance in recent times.

Ornament

The ornament for the most part is characteristic of the primitive type of decoration found on vessels attributed to the thirteenth, fourteenth and fifteenth centuries. One outstanding feature of our examples, however, is the fact that the *motifs* are arranged in three or multiples of three; and in seven or multiples of seven. Both are sacred numbers; and one or other of these, sometimes both, can be traced in 21 out of a total of 22 decorated vessels. Moreover, the sign of the cross is also used in vessels Nos. 1 and 23 (Pls. IV and VI), and in both examples the sacred symbol is given three times. It would seem, therefore, that the designs have a religious significance,[1] and perhaps some of the vessels (No. 23) were also intended for religious functions.[2]

Stevens (1933) describes a similar numerical arrangement of certain *motifs* in some of the vessels found at Old Sarum: the jug illustrated by him (Pl. VI, Fig. 2, No. 4) has the collar 'decorated with incised lines in groups of three. The body . . . has three horizontal incised bands with diagonal scratches of three lines between them.' Furthermore, three horizontal bands of wavy lines are shown in the vessel (Pl. V, Fig. 2, No. 1), and in the fine jug (Pl. VII, Fig. 1) three panels of incised lines, each enclosing a 'bold spray . . . applied by a three-pronged instrument,' may be taken as a useful parallel for the decoration on our examples from Ashton: Nos. 1, 2, 9, 14 and 15.

Horizontal bands of wavy lines occur on eight of our vessels. These seem to have been done with comb-like implements of three kinds: two of them with seven teeth, one slightly broader than the other; the third with three teeth only (vessel No. 18). The largest of the

1. Cf. Browning's *Soliloquy of the Spanish Cloister*:

> I the Trinity illustrate,
> Drinking watered orange-pulp—
> In three sips the Arian frustrate;
> While he drains his at one gulp.

2. Our colleague, Mr. W. F. Irvine of Bryn Llwyn, Corwen, has suggested that the potter's kiln at Ashton, and also the recently discovered glass-house at New Pale, Delamere, were in all probability the property of Vale Royal Abbey.

combs was also used for making the ' spray ' or plume-like decoration [1] (Text Figs. 3, 4); the crosses (Text Figs. 3, 7); and for piercing the handle of the pitcher (Pl. II, 10; Pl. III, 2). The next in size was used for making the horizontal rows of punctures and vertical bands of grooves (Pl. II, 9); and the three-toothed one for the decoration such as that on vessel No. 9 (Text Fig. 6). Two potters seemed to have used these comb-like implements—one with a certain sureness of line (Text Figs. 3, 7, pp. 15, 21), the other with a poorness of stroke resulting in a scrawled imitation (Text Fig. 6, p. 19) of the *motif* of the one who was evidently the superior workman.

Decoration of the ' strip and pellet ' type occurs on two of our vessels (Pl. VI, 20). In both of these the pellets are arranged in a series of three between the strips of applied clay. Strips of rouletted clay without pellets occur on one vessel (Pl. VI, 21) only, and these are arranged in three groups each having three strips arranged fan-wise. A herring-bone pattern, roughly scratched with a sharp instrument, also occurs on two or three fragments of pottery belonging apparently to jugs or pitchers; one of these (Pl. II, 7) also exhibits part of a vertical strip of rouletted clay.

One of the most interesting of our finds is the jug or pitcher (No. 24) decorated with large horseshoes, done in strips and studs of pale clay. Originally there were evidently three shoes, of which two are preserved almost intact, but there are vestigial traces only of the third. Seven nails are represented in both shoes, and this appears to be the number still used in farriery. See also below, p. 22.

' Thumbed ' bases. One example (No. 22) has a continuous thumbed-down base, and five examples (Nos. 13, 14, 15, 17, 23) are thumbed down in widely separated groups.

Rims to Jugs.—These in the majority of our examples are much alike. The upper edge or lip, whether thick or thin, slopes slightly inwards, and the exterior is, as a rule, broadly chamfered. Below the chamfered rim is a rounded moulding or bead, with a corresponding hollow or depression in the interior. Droop and Larkin (1928) illustrate a fourteenth-century jug found at West Derby Castle showing the same characteristics.

' *Collar.*'—This useful term is used by Stevens (1933, p. 264). In the jugs and pitchers it represents the line of demarcation between the neck and the body of the vessel. In our examples it is generally present in the form of a relatively broad, shallow groove, well marked in vessels

1. Is it at all probable that this form of decoration represents a triple fleur-de-lis ?

Nos. 7, 14; rarely in the form of a cordon, as in the baluster-shaped jugs Nos. 2 and 3.

Roulette pattern (Pl. II, 8).—The two-handled pitcher (No. 26) is decorated with a roulette; and evidently the same implement was used also for impressing the strips of applied clay, as in jugs Nos. 20 and 21. The roulette seems to have had bilateral cogs, divided by a very narrow central space. A similar roulette seems also to have been used on a handle found at West Derby Castle.

Stamps (Pl. II, Figs. 1-6).—Impressions of six different kinds of stamps were found, viz. :—

1-1c. Grid pattern. This was used for impressing the pellets of applied clay on two of the vessels (see No. 20).

2, 2a. Convolute pattern. This is circular in outline with convolutions of a rather puzzling nature. Here it appears as an independent boss of obscure origin; but it recalls, in some small measure, the Late Celtic spiral or trumpet design, excellent examples of which are given by Coffey (1909), notably in his Fig. 10, and also on the plaque of the Crucifixion (Pl. XVI) from Athlone.

This stamp is used on three of the baluster type of vessels (Nos. 1-3) in which there is a series impressed all round the expanding or quoit-shaped foot, and also an impression on either side of the upper attachment of the handle (Pl. III, 4).

3, 3a. Wheel pattern. Used only on thick-walled dishes. See also Text Fig. 10, No. 16, p. 24.

4, 4a. Rectangular stamp. The ornament on this reminds one of the designs on mediaeval pavement tiles ornamented with impressed designs. Used only in conjunction with the convolute stamp, No. 2 above.

5. Jewelled stamp. This has all the appearance of a jewelled ornament, probably a personal one, but this is not clear. It is used on two vessels only: the jugs Nos. 1 and 23. In the latter case its use is evidently intended to represent a jewelled cross.

6. This stamp, of which there are two or three examples on fragments of thick-walled dishes, is not at all clear and seems to be badly impressed and blurred.

Glaze

Glaze was applied to the exterior of many of the jugs or pitchers, often sparingly and unevenly; also to the base of the interior of the

cauldron-shaped vessel, and to the whole of the interior of the small dish (Text Fig. 8, No. 13).

Three colours were used: (1) A lead glaze giving varying shades of translucent yellow, mostly exhibiting dark brown or red-brown vertical streaks; (2) an olivaceous[1] brown, often streaked with brown-black; (3) a brown-black, sometimes shading to faint purplish black, produced probably by the addition of manganese.

Handles

Plate III, Figs. 1–8

The handles of the jugs were attached to the body of the vessels by pressing the clay with finger or thumb, leaving a relatively narrow spatulate impression on both sides, at top and bottom; the latter ones strongly divergent and generally with a deep depression between them. There are three distinct kinds:—

1-3. Two-ribbed or strap type. These may be quite plain (nine examples); slashed (five examples); pierced or stabbed with a wire probe or the like (five examples), or pierced with a comb of seven teeth, as in No. 2.

4. Keeled. This form is traceable on three of the baluster type of vessels, and there are traces of a similar type of handle in the jug with bulbous body and tall neck (Pl. V, No. 14). This kind of handle, however, does not seem to occur in the mediaeval vessels found either at Old Sarum (1933) or Rye (1933). But the type seems to be represented at the British Museum (1923), as indicated by the illustrations, Text Figs. 4 and 5, p. 6.

Round (see Pl. IV, 4, 6, 7). This simple form occurs on the three jugs of the baluster type, and there are also portions of other examples. This form of handle also occurs on vessels of a similar kind at Old Sarum, the British Museum (1923, p. 5, Figs. 1 and 3), and the Guildhall collection (1908, Pl. LXVI, 4, 7; Pl. LXVII, 6, 7).

5. This is of doubtful use. It seems to belong to the vessel with a zoomorphic spout (Pl. III, 11).

6-8. Crook-ended. Three typical examples of this form of handle

1. When placed in brilliant sunlight a beautiful translucent green hue is at once made manifest. But this glaze under ordinary lighting conditions cannot be described as green; and is altogether different to the green glaze so characteristic of much of the mediaeval pottery found in many parts of Britain, but of infrequent occurrence at Chester.

are here illustrated; there are other examples. All of them are broadly grooved on the upper surface as shown in No. 8; and nearly all of them bear traces of yellowish glaze sometimes mottled with yellow-green. No vessels have, so far, been found to which these handles belong. Newstead and Droop (1932) found precisely similar handles on the site of the Roman amphitheatre at Chester; two of these were attached to fragments of what seem to have been shallow bowls or cooking pots. Vidler (1933) shows a similar type of handle fitted to a vessel described as a ladle.

9. This is in all probability one of the peg-like legs belonging to a large three-legged pipkin. There are two of these, and probably fragments belonging to others; but the vessels to which they belong have so far not been traced.

Spouts

Plate III, Fig. 11

There are four well-defined kinds of spouts, viz. :—

1. *Pinched.*—This is the commonest kind and is represented in fifteen vessels. In all the spouts are very shallow and formed by pressing the wheel-turned rim outwards.

2. *Bridged.*—Five examples. This type of spout is applied after 'throwing' on the wheel and the wall of the vessel is pierced just above the lower level of the spout, the rim and also a portion of the neck being left intact in the form of a bridge. The spout may be level with the rim as in No. 2, or considerably below it as in No. 24—the jug with three horseshoes.

3. *Gutter-like.*—Five examples (see Pl. V, Nos. 11-15). Clay was applied and merged into the rim, then drawn outwards and upwards and the bilateral lips pinched slightly inwards forming a deep gutter. These may be subdivided: (*a*) with the end truncated (No. 12), and (*b*) with the end upturned and broadly rounded (No. 14).

4. *Zoomorphic.*—One example only (Pl. III, 11), and this in the form of a dolphin or fish, cleverly modelled by hand. It belongs to a rather thick-walled vessel, probably a jug. There is also a fragment of another fish or dolphin similarly treated but forming part of the decoration of the wall apparently of the same vessel. Both were originally coated with yellow glaze; but this has now perished from burial in the clay wall of the kiln and appears as a cream-buff slip on red clay.

Description of the Pottery

Plates IV–VI, Nos. 1–27

1. Pitcher of the baluster or spindle form. Clay (externally) buff to smoky buff. Glaze yellow-brown, mostly perished. Bridge-spout and

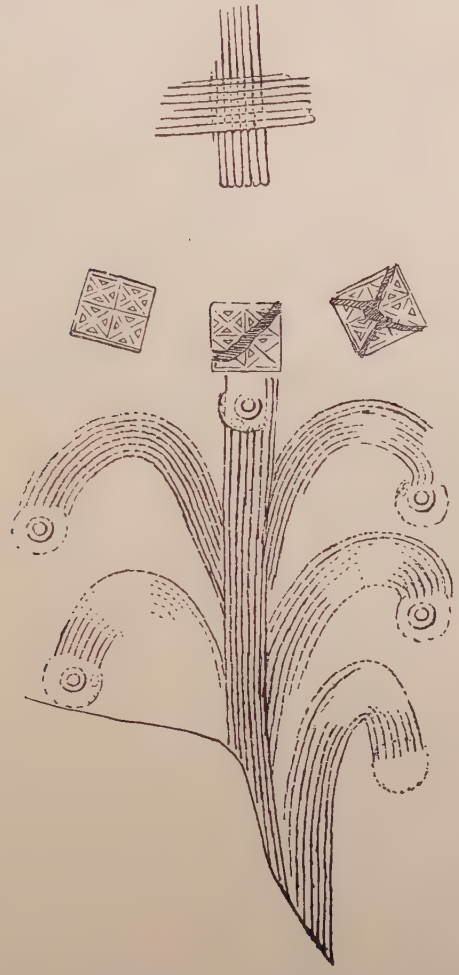
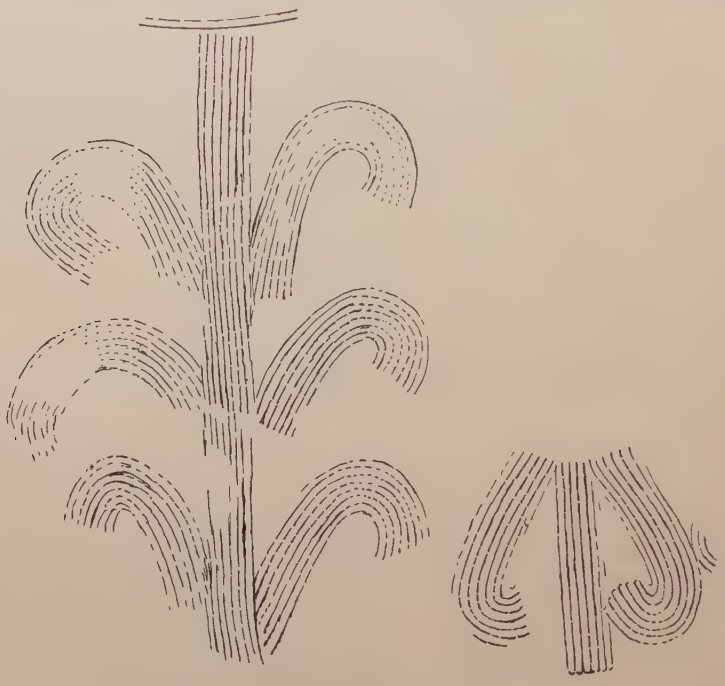


Fig. 3.—Ornament of jug No. 1. Scale 1:3.

traces of keeled handle, with traces of the convolute stamp as in No. 3 (Pl. III, Fig. 4). Decoration (Text Fig. 3) consists of three crosses on the neck; a series of eight rectangular stamps placed horizontally along the line of the shoulder. Body of vessel with portions of three plume-like

motifs incised with a comb (see also above, p. 11); the ends of the curved, bilateral J-shaped strokes impressed with the jewelled stamp (Pl. III, No. 5). Foot with a series of impressions of convolute stamp as in Nos. 2 and 3. Height 18 in.

2. Similar in shape, colour and glaze to No. 1. Decoration: three plume-like *motifs*, each with three bilateral J-shaped strokes (Text Fig. 4);



Figs. 4 and 4a.—Ornament of jug No. 2.
Scale 1: 3.

the strokes vary in regard to their position—some pointing upwards others downwards, as in the small *motif* under the handle (Text Fig. 4a). Base or foot impressed with the convolute stamp. Handle missing, but the upper attachment showed that it was keeled. Height, 16 in.; bulge, 7·9 in.; foot, 7 in. Capacity, *c.* 10½ pints.

3. Similar in shape, colour of glaze and clay to Nos. 1, 2. Decoration in three zones (Text Fig. 5): the upper and lower zones formed by a series of impressions of the rectangular stamp; the central one a combed wavy line. Upper attachment of the keeled handle (Pl. III, Fig. 4);

and the foot of the vessel impressed with the convolute stamp. Height, 16·5 in.; foot, 6-6·5 in. Capacity similar to that of No. 2.

4. Dark buff clay. Glaze brown, but almost completely destroyed. No decoration. Handle round in section. Height, 14·2 in.; bulge, 6·2 in.; foot, 5·8 in. Capacity, 14¼ pints.

5. Candle-stick or kiln prop (?) in rather rough, brick-red clay. Height, 4·3 in.; width of upper portion, 3·2 in.; diameter of socket, 0·7 in.; depth of socket, 3·8 in.; base, 4·8 in.

Another example of this has also admitted of reconstruction.

Fig. 5.—Ornament of jug No. 3.
Scale 1 : 3.

6. Jug. Clay, smoky-buff. Glaze olivaceous brown. Spout pinched outwards. Handle round in section and slightly glazed on the upper surface. Foot strongly dilated and with a relatively broad vertical edge: the only example exhibiting this character. Height, 14·5 in.; foot, 6-6·1 in.; capacity, 7½ pints.

This jug was found standing upright in the clay wall of the furnace a little to the right (E.) of the feed-hole to the furnace. Vidler (1932, pp. 88, 90) also found 'whole pots' built into the clay walls of the mediaeval kiln at Rye.

7. Jug. This vessel bears what are evidently accidental splashes of brown glaze on opposite sides. Handle round in section. Decoration: three horizontal bands of combed wavy lines. Height, 13·9 in.; bulge, 6·5 in.; foot, 5·8 in.; capacity, *c.* 6½ pints.

8. This in its completeness seems to have been of similar form to No. 7. The whole of the upper portion of the vessel, however, has been chipped away, almost evenly all round, and the handle is missing. Its condition suggests that it may have been used at the kiln for odd purposes. Height, 12·5 in.

Portions of three more jugs of the baluster class have also been put together, each one exhibiting a fair section of the decoration :—

(*a*) Three horizontal bands of wavy lines incised with a comb of seven teeth. Glaze olivaceous brown.

(*b*) Neck (lower portion only preserved) with combed horizontal grooves. Body with three horizontal grooves incised with a comb of three teeth. Glaze purple-black on one side, the rest destroyed.

(*c*) Body with four horizontal bands of grooves done with a comb of three teeth. Glaze yellow-green, but mostly destroyed by firing in the clay walls of the kiln.

9. Clay buff grey. Glaze dark brown to brown-black. Portion of spout and rim restored. Decoration a scrawled imitation of the ' plume '-like *motifs*, one of which is shown in Text Fig. 6 ; the incised lines in this case, however, were done with a comb of three teeth. This vessel is badly distorted and a gaping fissure extends right across the bulge.

10. Cauldron. See p. 23.

11. Jug of squat bulbous form and unglazed. Decoration : three horizontal bands of combed wavy lines. Handle (Pl. III, Fig. 3) of the broad two-ribbed kind and well slashed. Spout missing, the restoration made from the spout in No. 12. Height, 9 in. ; bulge, 10·1 in. About one-quarter of the original vessel was recovered, and the fragments of which it is composed have suffered a good deal by the action of fire subsequent to baking—some pieces being smoky grey others brick-red in colour. The vessel, however, is almost classical in its form, and seems to represent a new type for the period.

12. Jug. Upper half only, the rest missing. Three widely-separated angular steps or ridges passing under the handle ; the spaces between them, and also below the third, scored with wavy lines. Spout gutter-like, the end suddenly truncate, resembling somewhat the spout in a

'hole-mouthed' Minoan jug. Handle two-ribbed and deeply slashed, closely resembling that in the preceding.

A large section of a third example of this class of vessel has now been put together. It represents the whole 'rake' of the jug, and includes the spout, neck, handle and part of the base. Decoration in four horizontal bands of wavy lines done with a comb of three teeth. Handle pierced centrally. Glaze yellow shading to yellow-brown. Height, 9·5 in.; bulge, 11 in.; base, 8 in.

13. Jug. Decoration: three horizontal bands of combed incisions, with a band of wavy lines between the first and second. Spout gutter-

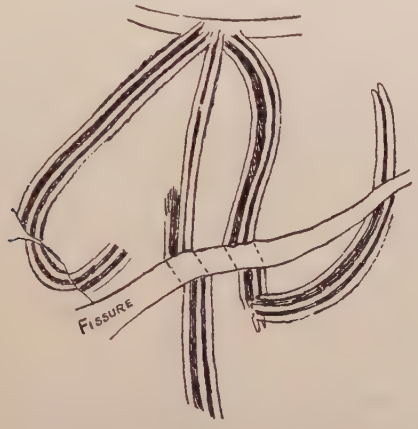


Fig. 6.—Ornament of jug No. 9.
Scale 1:3.

like, but more narrowly pointed than that in No. 12. Handle two-ribbed and pricked with a pointed instrument, leaving a somewhat triangular hole; upper half of handle missing. Base thumbed down in widely separated places. Height, 13·5 in.; bulge, 10·9-11 in.; capacity, *c.* 14 pints.

14. Jug. Decoration: three of the 'plume'-like *motifs*; carelessly executed—scrawled, in fact, as in No. 9. Spout similar to that in No. 13. Handle missing, but the upper attachment showed that it was strongly keeled as in Nos. 1-3. Base thumbed down in widely separated places. Glaze yellow-brown, but mostly perished, giving the vessel a smoky-buff colour. Height, 12·9 in.; bulge, 10 in.; capacity, *c.* 12 pints.

15. Jug. Similar to No. 14, but with a shorter neck. Glaze almost entirely destroyed and traceable only in a few places. Decoration: similar to that on No. 14 and equally badly executed. Base thumbed down in widely separated places. Handle two-ribbed, and irregularly pricked, similar to that of No. 13. Height, 13·5 in.; base, 8 in.; capacity, *c.* 13 pints.

16. Jug. This interesting form seems to belong to the ' bag-shaped ' type of jugs. It has a plain two-ribbed handle and a ' bridge '-spout. The body is finely but distinctly ' wreathed ' as the result of having been thrown on the wheel, but this character is common to other vessels and may be gathered from the illustrations. Glaze dark brown to brown-black, and generally well preserved. Height, 10·5 in.; bulge, 11·4 in.; capacity, *c.* 15 pints.

17. Jug. Similar in form to No. 16 but not so markedly conical. Decoration: three horizontal bands of combed wavy lines. Spout ' pinched ' out, shallow. Handle two-ribbed, plain. Base thumbed down in very widely separated places. Glaze yellow shading to brown-yellow and faintly streaked with brown-black. When placed in strong sunlight a translucent green is at once revealed. Height, 11·7 in.; bulge, 12 in.; capacity, *c.* 18 pints.

18. Jug. Unglazed. Decoration: *four* bands of wavy lines incised with a comb of *three* teeth. Spout pinched outwards, shallow. Handle two-ribbed, unevenly pierced or stabbed with a skewer or the like. Height, 10·5 in.; bulge, 9·6 in.; capacity, *c.* 10 pints.

19. Jug. Glaze yellow to brown-yellow, streaked brown-black; there is evidence that the vessel was evenly coated at first, but now the glaze is almost entirely destroyed. No decoration and no thumbing of the base. Height, 11·5 in.; bulge, 10·6 in.; capacity, *c.* 14 pints.

20. Jug. Unglazed. Decoration of the ' strip and pellet ' type. The strips are rouletted, and the pellets (arranged in threes) are impressed with the ' grid ' stamp (Pl. II, 1-1c). Handle two-ribbed, plain. Spout very shallow, pinched outwards. Height, 13 in.; bulge, 9·2 in.; capacity, *c.* 13 pints.

N.B.—There is also another example of this form of jug with a precisely similar decoration. It differs only in having a coat of dark-brown glaze. This example is now in the possession of Mr. M. H. Ridgeway

of Tarvin. There are also fragments of two other jugs with this type of decoration.

21. Jug. Unglazed. Decoration: in strips of applied clay, rouletted; these are arranged in three fan-like groups, each group composed of three strips which meet together at or just below the middle of the vessel. Handle, of which the lower half only is preserved, two-ribbed and plain.

There are fragments belonging to another vessel of this type—that is, the ornament is treated in the same way.

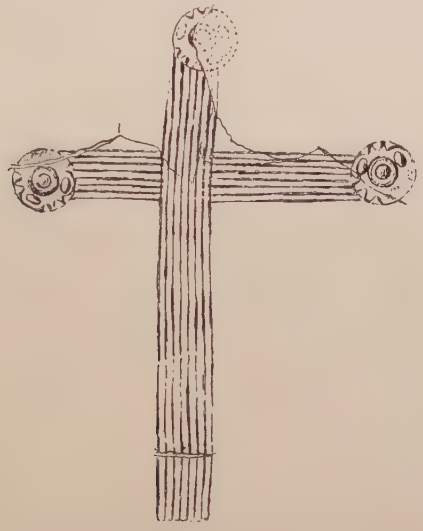


Fig. 7.—Ornament of jug No. 23.
Scale 1 : 3.

22. Jug. Glaze yellow-brown to olive-brown. Handle two-ribbed; base thumbed down all round. Spout missing, but there were indications that it was of the pinched type. Height, 13·5 in.; bulge, 9·5 in.; capacity, *c.* 13 pints.

23. Jug. Glaze good; yellow-brown to olivaceous brown, freely streaked with brown-black. Decoration: three large crosses (Text Fig. 7) the arms and head of which are impressed with the jewelled stamp (Pl. II, Fig. 5). Base thumbed down in three widely separated places. Handle two-ribbed, plain. Spout pinched out. This vessel, though badly distorted and fissured, has the glaze well preserved. Height, 13·5 in.; bulge, 10 in.; capacity, *c.* 14 pints.

24. Jug. Glaze yellow shading to yellow-brown and faintly streaked. Decoration: large horseshoes done in strips and studs of pale-coloured clay; two of the shoes are preserved more or less intact; the third is missing, but there are traces of its attachment to the body of the vessel.

A strip of rouletted clay is placed vertically between the shoes; much of this, however, has broken away. Spout of the bridge type, but placed lower down the neck of the vessel than in any of the other examples, and its union with the body of the vessel slashed with a knife and impressed with a finger more or less alternately and radially from lip to lip. Handle two-ribbed, slashed and glazed; lower half missing. Base rather badly sagged. Height, 14·5 in.; bulge, 9·7 in.; capacity, *c.* 14 pints.

The decoration of this vessel, though not unique, is interesting. Jewitt (1878) has described and figured a fine pitcher from Burley Hill, Derbyshire, ornamented with five horseshoes and two buckles, which Jewitt, believing the vessel to date from the Norman period, claimed to be the badges of the Ferrers family, the Norman Earls of Derby. Hobson (1902), quoting Planché, has shown, however, that there is no evidence that the horseshoes appeared in the coat of arms of Ferrers till the middle of the thirteenth century. If, then, Jewitt was correct in interpreting the design as the badge of the Ferrers, it would follow that the Burley vase must be later than that date.

25. Jug. Glaze good, yellow-brown to brown-black closely freckled with yellow. In strong sunlight the yellows and browns exhibited a distinct olivaceous green hue. Handle two-ribbed, pierced. Spout pinched outwards and very shallow. Height, 13 in.; bulge, 10 in.; capacity similar to that of No. 22.

26. Pitcher of two handles. Glaze yellow, but mostly destroyed. Decoration in zones of rouletted impressions (see Pl. II, Fig. 8). Body strongly 'wreathed' in throwing. Handles two-ribbed, deeply slashed in two vertical rows. Spout shallow, pinched out. Base rather badly sagged. Height, 15 in.; mouth, 6 in.; base, 8·5 in.

27. Pitcher of two handles. Glaze represented by two or three accidental streaks or blobs only. Markedly wreathed in throwing, but less so than No. 26. Spout pinched out. Handles two-ribbed, plain. Height, 13·3 in.; bulge, 12 in.; capacity, *c.* 24 pints.

Pots and Dishes

Text Figs. 8-10, Nos. 8-16

8. (Text Fig. 8, No. 8; and Pl. IV, No. 10.). Cauldron-shaped pot with thick, everted rim. Exterior finely wreathed on lower half of vessel where it also bears an accidental splash of glaze. Interior of base coated with yellow-brown glaze, which extends up the side of the vessel for an

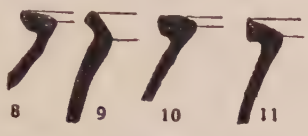


Fig. 8.—Sections of pots.
Scale 1:4.

inch or two. Height, 8·1 in.; bulge, 10·6 in.; mouth varies between 6 in. and 6·5 in.; capacity, *c.* 13 pints. Stevens (1933) figures a similar but slightly larger vessel from Old Sarum, and states (p. 236) that 'it corresponds very closely to those found at Sydney though rather larger.' He assigns his example to the earlier part of the thirteenth century.

Rim fragments belonging to several pots of similar form were also found, and it may be possible to reconstruct another example. The rims of all these are more or less oblique, and the sections here illustrated (Text Fig. 8, Nos. 8-11) may be taken as fairly representative of the series.

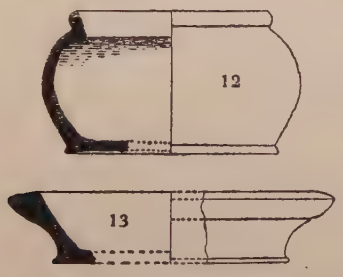


Fig. 9.—Reconstruction of pot No. 12 and dish No. 13.
Scale 1:4.

12. (Text Fig. 9.) A small and somewhat globular pot, coated externally with a rough and very dark olivaceous glaze, shading to black where it is thickly coated. It is, however, very badly distorted, and the clay almost vitrified and grey in colour. The drawing (No. 12) was

reconstructed from what appears to be a fairly perfect section. Height, 3 in.; diameter of base, 4·4 in.; bulge, *c.* 5·3 in.

This may belong to the class of vessels described as 'cooking pots.' Stevens (1933, p. 261) states that 'such vessels seemed to have predominated' at Old Sarum. He adds: 'none of the pots are large, the maximum diameter being 5½ in. or rather less, and the height 4½ to 5 in.'

13. (Text Fig. 9.) Shallow dish with heavily moulded rim. Upper surface of rim and the interior coated with yellow glaze. No other example of this class of vessel was found, and so far no exact parallel can be traced.

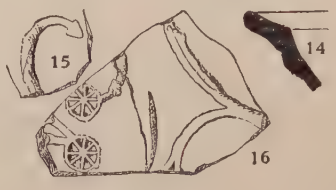


Fig. 10.—Section of dish 14 and ornament on fragments 15 and 16. Scale 1:4.

14. Rim and side-fragment of a large shallow dish with a strip of pie-crust decoration outside below the rim (Pl. III, No. 10). Glaze yellowish brown, and there are traces of it on both sides. A few sections show that the vessel in its completeness was broadly oval in outline.

15, 16. (Text Fig. 10.) Several fragments belonging apparently to dishes of form similar to No. 14. Some are quite flat, others slightly curved. All of them are decorated with slips of applied clay in the form of branches or tendrils, either ending with the wheel stamp, as in No. 16 (see also Pl. II, Figs. 3, 3a), or as in a single instance with an arrow-shaped point (No. 15). No. 16 is heavily coated with dull yellow glaze on the decorated surface, and there are traces of it also on the opposite side. Obviously the vessel got fissured in firing, as the glaze has covered the fractured edges quite thickly.

Tiles

Not illustrated

A few fragmentary pieces of thin, flat unglazed tiles were found. The thickness of these varied between 0·9 in. and 0·6 in. The longest

piece measured 5·5 in., but unfortunately had fractured ends, so that its original length could not be determined.

One large fragment of an example, thicker than the above, exhibits the segment of a circle, which in its completeness would give a diameter of 12·5 in. This is flat on one side, and slightly concave towards the periphery on the other, and is pricked deeply in widely separated places. The flat side bears a circular patch of yellow-green glaze 4 in. in diameter, suggesting that the tile had been used in the kiln for supporting a vessel with a circular base. Its fractured edge also bears traces of glaze; obviously, therefore, it must have been fissured during the process of firing.

ACKNOWLEDGMENTS

I wish to express my indebtedness to Mr. G. B. Leach for all the care and trouble he has taken in the exploration of the site, for registering the fragments belonging to the whole series of vessels which have now been restored, and also for the plans and section of the kiln, Figs. 1 and 2.

I wish also to thank Mr. R. L. Hobson, Keeper of Oriental Antiquities and of Ethnography, the British Museum, for his kindness in lending me a copy of his paper on 'Mediaeval Pottery found in England'; and Mr. Frank Stevens, Controller of the South Wilts and Blackmore Museum, for a copy of his paper on 'Old Sarum Pottery.' Furthermore, I am grateful to my colleague Professor J. P. Droop for kindly revising my MS. and the galley proofs.

CHESTER, 20*th March* 1934.

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1

2

MEDIAEVAL KILN, ASHTON, CHESHIRE.

1. From the East.
2. From the South.

C, D=Flues, E=Feed-hole.

ASHTON POTTERY.

Nos. 1–6, stamps; No. 7, fragment with herring-bone design and rouletted strip; No. 8, rouletted pattern on vessel No. 26; No. 9, fragment punctured and scored with seven-toothed comb; No. 10, section of handle (Plate III, 2) pierced with seven-toothed comb.

ASHTON POTTERY.

Nos. 1–4, handles (all to same scale); Nos. 5–10, crook-ended handles, etc.; No. 11, zoomorphic spout.
All scales are inches.

1

2 3

4

5 6

7

8

9

10

ASHTON POTTERY.

All to same scale of inches.

11

12

13

14

15

16

17

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19

ASHTON POTTERY.

All to same scale of inches.

20

21

22

23

24

25

26 27

ASHTON POTTERY.

All to same scale of inches.

THREE VASES IN CAMBRIDGE: AN ATTRIBUTION TO CYPRUS

By R. W. HUTCHINSON

WITH PLATE VII

In the Fitzwilliam Museum, Cambridge, there is a small group of three hand-made vases consisting of two one-handled goblets and a small jug with a cylindrical side-spout. The catalogue states that they were reputed to have been found on the Museum Hill in Athens. I am informed by Mr. A. J. B. Wace that the attribution depends on the word of the dealer from whom they were acquired. The goblets measure 3 and $3\frac{1}{4}$ inches high respectively, and 6 and $5\frac{7}{8}$ inches across at the broadest point; the jug (including the handle) is $4\frac{3}{8}$ inches high and $4\frac{1}{2}$ inches broad.

The two goblets are extremely uniform and were probably made by the same potter. They are hand-made, coated with a white slip and decorated in a lustrous but very bad (almost matt) brown paint. The foot was covered with the brown paint and two straggling bands of it run horizontally round the bowl until they reach the handle, where they curve up to meet the rim. (Pl. VII, 1 and 2.)

The jug is rather a better piece of work, and the paint is completely matt; the vase has a skeuomorphic decoration, probably derived ultimately from the sling that enclosed its gourd prototype (though I do not mean to imply that the painter was necessarily conscious of such a derivation). (Pl. VII, 3.)

A superficial judgment might classify them as matt-painted ware of the Middle Helladic or Middle Cycladic groups, but the shapes are strange for such a classification and the paint on the two goblets is not the perfectly matt variety we are accustomed to associate with Middle Helladic vases. Small spouted jugs are common enough, of course, in the Late Helladic III period, but they have basket-like handles over the top.

Let us forget that these vases are supposed to come from the Museum Hill, Athens, and let us look further afield for parallels. Among the Sub-

Mycenaean wares of Cyprus we find similar round-bodied goblets with pedestal feet and one handle apiece, and the very brother of our goblets was found in tomb 33 [1] at Curium, a tomb that contained no vases other than Sub-Mycenaean.

The shape seems to be a Cyprian modification of the ordinary Late Helladic III cup, formed by adding to it the stem of a Late Helladic goblet.

The Fitzwilliam jug can also be closely paralleled in Cyprus by a White Painted V shape (Gjerstad, *Studies on Prehistoric Cyprus*, p. 172, No. 8), itself derived from an older Cyprian form characteristic of the Red Polished II group. The decoration of the Cambridge jug also resembles the poorer and more skeuomorphic varieties of White-Painted ornaments.

In view of these close parallels in Cyprus and the absence of such parallels elsewhere, I suggest that these three vases, despite their reported provenance, are Cyprian Sub-Mycenaean and so to be dated between 1200 and 1000 B.C.

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1. B.M. Cat., Vol. I, Part II, No. C. 721.

1 2

SUB-MYCENAEAN GOBLETS FROM ATHENS.

3

SUB-MYCENAEAN JUG FROM ATHENS.

EXCAVATIONS AT NIEBLA

By O. DAVIES

Having been brought into contact with Mrs. Whishaw owing to my studies on ancient mines, I was asked to stay a few days in March 1933 with her at Niebla in prov. Huelva, south Spain, where she has formed a collection of prehistoric and more recent objects and has, under licence from the Junta Superior de Excavaciones, been carrying out investigations for some years. It has seemed worth while to publish some of the material recently unearthed, and also I was given the opportunity of making one or two interesting tests myself. Prof. Droop also was working here some years ago,[1] but he had been unable to find any stratified deposit of prehistoric pottery or evidence of the occupation of the site in the bronze age.

Mrs. Whishaw has recently been excavating the large deposits or comparatively modern detritus outside the town wall on the south-west, immediately to the west of the museum, on the land known as the Canapé de la Reina. When I arrived the moat had just been discovered, and I was able to trace it by a number of test-pits most of the way along the south-west side of the town. It was cut either in conglomerate or in earth; its sides rise at an angle of about 60°, the depth from the outer lip being about 1·4 metres; as it ran along the slope of the hill, the inner wall is considerably higher. The bottom is flat, from ·7 to 1 metre wide. It had been partially and then completely filled in recent times; the lower filling, about ·65 metre thick, consisted of stiff red clay containing a few sherds and fairly recent tiles; at the top of this clay layer was a considerable number of sherds, showing that this level had been exposed for a time. Above this had been tumbled fair-sized loose stones and tiles to the lip of the ditch, and in many places on top is a low wall of beaten earth or hormigon, to secure a firm foundation for superposed buildings. Above this level Mrs. Whishaw had cleared away much loose detritus.

1. *Liverpool Annals of Archaeology and Anthropology*, XII, 175.

The town of Niebla stands on a plateau above the Rio Tinto, capped with a thin stratum of limestone apparently of recent formation. The hormigon town wall in places rests directly on this limestone, in others apparently on naturally deposited clay or on an artificial foundation of gravel or stones. In the cellar of the museum there is one metre of sterile clay between the rock and the wall, with a layer of land shells in one place and an occasional coarse sherd, probably wheel-made, near the top of it; the Mira tower is built on gravel in which I found a piece of iron slag, derived from probably medieval smithies in the town, as there was another piece in the lower layer of the filling of the moat. Mrs. Whishaw, however, directed my attention to a place shortly to the west of the Mira tower, where we were testing for the moat, and we ran a trench back to the line of the wall.

The section here reached at 1·68 metres[1] a stiff, red, gravelly clay, containing no big stones, but with a few black patches on the surface which are perhaps the remains of old vegetation; it is almost certainly virgin soil. Above this is an alluvial layer 48 cms. thick of big stones and stiff, red clay containing a few bones and hand-made sherds; at the top of the layer was a piece of quartzite slag, of which several have been found, and which are almost certainly derived from the fusion of local ochrous earth in hearths not used for metallurgical purposes. The sherds were found at all levels, down to 1·68; the most interesting, at 1·30, was half a black-polished bowl, with no design, incurving rim, and apparently rounded base (Fig. 2, No. 1); there was a small piece of rim belonging to another bowl of the same type. The shape is almost certainly earlier than that of the pottery from the early iron-age pit dwelling, but is common at Los Bermejales, and is probably bronze age, being similar to the bronze age high-footed bowls of other parts of Spain.

From ·60 to 1·20 is a stratum, whose upper edge slopes at about 45° and the lower one at about 10°; it is composed of many layers of flood-borne mud, from 1 to 10 mms. thick; these must be due to muddy water having stood in pools and dried, and at 1·50 metres out from the town wall are thin traces of a concrete wall 10 cms. wide, which must have held the water in puddles and prevented it flowing down the hill; at some date before the building of the town wall this concrete wall was almost

1. Measures were taken from the surface of the ground 70 cms. below the base of the town wall, and at some distance out from it; the upper strata, however, slope steeply, so that their thicknesses under the town wall correspond to the measurements given.

completely removed and the earth behind it cut away at an angle of 45°, so as to form a steeply sloping berm to the moat. In this layer were nine sherds: four of a coarse red ware, five parts of a wheel-made jar with a greenish-yellow slip; I do not think it possible that any of these sherds can be pre-Roman, and they might well be later.

The top layer consisted of detritus, except under the town wall itself, which was built up on a foundation of small stones and earth, in which was a piece of iron slag and a sherd of coarse pottery, clearly not early and probably post-Roman.

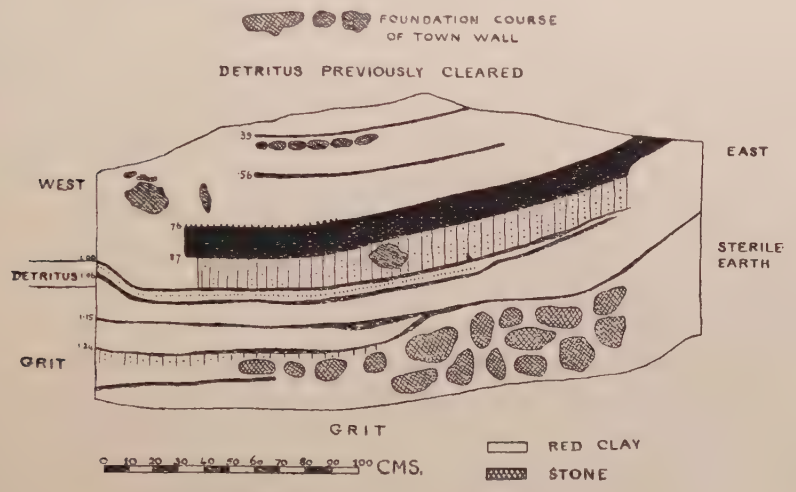

Fig. 1.—NIEBLA, SECTION OF EXCAVATION.

I was, however, principally concerned with a prehistoric site immediately to the west of the museum buildings and directly below the town wall, which here rests on a foundation course of rough stones from the base of which levels were taken (see Section, Fig. 1). Mrs. Whishaw had already cut away the overlying detrital deposits which completely covered this foundation course, and had exposed the face of the site from which she had obtained some pottery, so that it was easy to dig back further and draw a section of it. The site proved to be a habitation pit cut in the grit under the shelter of a small limestone bluff to the east, but its east wall was actually formed of earth. Its form was circular, about 4 metres in diameter, and nearly one-third had been removed before my arrival, so that my section follows the line of a chord which is not quite a full diameter. The earth and the rock to the south had been much cut away

into an apparently purposeful hollow, I do not know when, though clearly subsequently to the pit dwelling; this made it impossible to determine if it had an entrance on this side, though the flood-borne mud at the lowest level showed that such an entrance, if it existed, cannot have drained the pit but must rather have been of the form of a descending stairway or ramp.

The total depth from the foundation course of the town wall is 1·48 m.[1] The lowest layer from 1·29 to 1·48 consisted above of large stones, then some red, gravelly clay, and below a stiff clay containing some sherds and charcoal at the top and small stones below, resting directly on the grit. This bottom layer must have been a prepared floor for the dwelling. Among the large stones were a few cavities and some layers of flood-borne ochrous mud; one layer is fairly constant and about ·5 cm. thick; in places are six or seven other layers about ·1 cm. thick. The stones are mainly rolled quartzite pebbles weighing one or two pounds each, though there are a few pieces of the local limestone. They are piled up towards the east side. It was clear that they had been introduced subsequently to the first settlement, as crushed under one I found part of a black-polished bowl, with a thin layer of mud between; further, at the east end the stones have to some extent sunk into the habitation layer, which was presumably damp, whereas at the west end the line of it is still visible and there are no stones. It is clear then that the site was flooded out, perhaps by storms, as it is quite 25 metres above the river; a considerable storm probably produced the thicker layer of fine mud, and perhaps others the thinner layers; this mud must have entered the pit before the stones, as it is found among them and does not overlie them. The stones themselves were probably also introduced naturally from the east by a violent storm, though they are very large to be moved by water and I do not know where they come from, considering that the site is on the brow of the plateau; there are some such stones at a high level in the earth to the east, and it is possible that this side was partly broken down and its stones scattered into the pit; for if they had been thrown in by the reoccupation people as a floor they would surely have been distributed evenly.

The habitation layer contained bones, charcoal, and some coarse sherds, including a slightly splaying and flattened rim of a jar. There

1. The strata rise somewhat to the east; measurements were taken from a point ·7 m. east of the west side of the pit.

were also two black-polished hand-made rims of type B,[1] several fragments of a fairly fine hard red pot made on a fast wheel, some pieces of a fairly large bowl, yellow on the outside and blackish on the inside, ribbed and wheel-made (Fig. 2, No. 4), and of a globular yellow pot, blackish inside, wheel-made, and about 12 cms. in diameter, with round handle attached to the shoulder (Fig. 2, No. 8).

Between 1·27 and 1·29 is gravel, containing one or two sherds and bones which perhaps had worked their way down, as this must have been thrown in to make a new floor. Above this at 1·24-1·27 and at 1·15 are layers of earth containing much charcoal, separated by fairly soft sterile earth; in the eastern part these layers join, so probably the earth was thrown in on the west after a short occupation because it was found that this side was too low and perhaps water collected in it. In this layer were bones, coarse sherds of large jars, one piece of burnt daub, a black

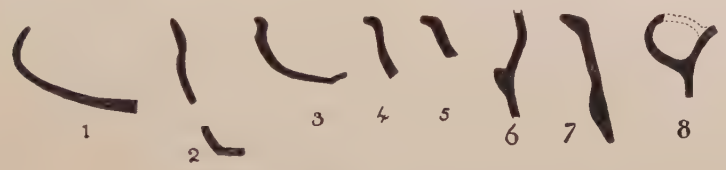

Fig. 2.—NIEBLA, SECTIONS OF POTTERY. Scale 1:3.

bowl of type B, two red-brown sherds, one an unornamented rim, which were very regular and perhaps wheel-made and pebble-polished, one hard, thin wheel-made sherd red on one side and grey on the other, and the rim of a wheel-made bowl (Fig. 2, No. 5).

From 1·06 to 1·15 is red clay containing some charcoal and sherds, perhaps filling, and at any rate not representing, an intense period of inhabitation. In it were one tine of a deer's antler, an ovoid handle of a coarse jar, one yellow sherd apparently wheel-made, and a coarse flat base with slight splay and walls rising at about 60°.

From 1·00 to 1·06 is a stratum of intense habitation consisting of two charcoal layers at 1·00 and 1·04, at 1·01 red clay, at 1·02 a layer of tightly packed shells and bones, at 1·04 a layer of sherds laid flat. The bone and shell layer contained principally razor shells; Mr. Hopwood of South

1. In all the levels of the site there occurred bowls of this fine black ware, already described by Droop; two shapes are distinguishable: type A, Fig. 2, No. 3, type B, Fig. 2, No. 2, from level 1·00-1·06. It is sometimes ornamented on the inside and rarely on the outside by being burnished with vertical or diagonal straight lines with feather design on one side of them; other patterns, such as cross-hatching, are occasionally found.

Kensington Museum has kindly examined some of the bones, and reports a piece of the jaw of a pig, another of a hare; and Dr. Norman of South Kensington reports another as part of the jaw of one of the Sparidae, either Sparus or Chrysophrys, an Atlantic fish. The sherds included several coarse specimens and black bowls of type B, the rim of a probably globular pot, one wheel-made sherd, one coarse sherd with triangular unperforated lug (Fig. 2, No. 6), the rim of a bowl with slightly thickened shoulder, painted all over the inside and from two centimetres below the rim on the outside with bright red, slightly lustrous, paint (Fig. 2, No. 7), and some pieces of burnt daub.

The site had now reached the top of the pit, and appears to have been deserted, as there are roots extending down from this level to about that of the big stones, so there was time for deep-rooted plants to grow on it. On the other hand, a hollow of this sort should have become quickly covered with rank vegetation, and as there is no humus layer, it is probable that it was not deserted for more than a year or two, unless the site was levelled down. It was then reoccupied on a smaller scale. A platform of yellow gravel with sand on top and a few larger stones was made, from ·87 to 1·00; in this layer I found no sherds save several fragments of a coarse, badly-baked jar. Between ·76 and ·87 is an intensive occupation level, containing many bones, some burnt, one shell of a bivalve perforated to be worn, several pieces of a coarse jar with slightly splaying flattened rim, and one fine black sherd, probably the rim of a bowl of type B.

At ·76 is a narrow humus layer containing grass roots, showing that the site was again deserted for a time. Between ·56 and ·76 is a layer of almost sterile clay, containing one bone and five sherds, one apparently a rather rough piece of fine black ware and the others coarse; it was probably a floor. Between ·53 and ·56 is another habitation layer; the large stone shown in the section was one of a line running north and south, of which some had been removed; it shows that the inhabitants had now taken to building a house with a rough stone foundation course; though the nature of the rest of the wall could not be determined, it was probably earth or clay. The floor was again made up with clay and tightly packed stones on top, and there is another habitation layer at ·39. In these levels I found some bones, many coarse sherds, some of which were wheel-made, but at so high a level these might be intrusive, and specimens of black bowls of types A and B.

It will be seen that almost nothing save pottery and bones was found. Unstratified was a small bone pin, 3 cms. long by ·3 wide at the head.

Droop had already thought it probable that the hand-made black pottery is early iron age. This excavation proves this, as at all levels this ware occurs along with the lighter-coloured pots made on a wheel, which in Spain can hardly go back to the bronze age; the painted sherd points to the same conclusion, but it is probably earlier than the sherds painted with bands of quarter-circles, which are presumably Vth or IVth century B.C. The whole period of occupation here may, however, not last more than a century or two. It still remains to explain why the Iberians continued to make and use side by side light-coloured wheel-made and dark-coloured hand-made wares; there seems to be little distinction in the types of vessel—at least, bowls of both types occur; according to one theory, perhaps the male and female potters continued to work contemporaneously.

Two years ago Mrs. Whishaw excavated a cave at Los Bermejales, immediately to the south of Niebla on the opposite side of the Rio Tinto. The cave has a horizontal entrance and several branches, while at a little distance in there descends into it from above a pit, which was choked with large stones. This pit was roofed at one period, as there are adhering to its sides stones and fragments of concrete, from which I dug out a piece of bone.

The sherds found here include apparently neolithic, bronze age, and iron age wares; but no stratification was observed. There was also found in one of the inner galleries radiating off from the pit a bronze saw and goat bell.

The neolithic pottery has ornaments reminiscent of beaker ware, though the shapes are different; it is of a class well known in Andalusia. It is rather thick, and varies in colour from red to black. The shapes include a deep bowl, a high-necked pot, a squat pot with bulging body-neck and splaying rim, and a tall, massive foot hollowed beneath. It is ornamented usually with horizontal linear designs, though there are two cases of vertical bands as well and one or two of a group of hanging festoons; only one sherd is ornamented on both sides; the patterns include horizontal lines, dots, single-hatched triangles, triangles below a horizontal line, herring-bones, and chequers; they are executed sometimes with lines, sometimes with rows of rectangular dots, often filled with white paste.

A mass of rather coarse pottery seems to be bronze age. It is hand-made, undecorated save for one instance of a lozenge-pattern executed by mottling and a few of finger-tip or incised ornamentation. The normal shape is a wide and deep bowl, reaching 82 cms. in diameter, with rim often curving slightly inwards and flat base; occasionally suspension holes and small bosses just below the rim are found. This pottery is similar to the bowl from the alluvium level near the town wall at Niebla, and is most probably bronze age.

Of the iron age are a few black-polished bowls of types A and B, similar to those in the pit dwelling at Niebla. The burnish ornamentation is found, though hatched lines and elongated lozenges are here more frequent than the feather pattern.

SOME NOTES ON THE DADO-SCULPTURES OF SAKJEGEUZI

By D. M. VAUGHAN

The late Dr. Hogarth, in his Schweich Lectures (1924) on the ' Kings of the Hittites,' begins his section on this site with the words ' Sakjegeuzi . . . need not detain us ' (p. 29), and briefly dismisses its sculptures as ' characteristic late Hittite art strongly influenced by the neo-Assyrian ' (p. 22). Similarly M. Pottier (L'Art hittite, V^e^ article, *Syria* 5, 1924, pp. 1-8) and M. Contenau (*Manuel d'Archéologie orientale*, III, pp. 1152-4) pass lightly over Sakjegeuzi as having merely multiplied material already familiar on other Hittite sites. Its excavator, Prof. Garstang, in his description of the sculptures of the palace-portico (*Hittite Empire*, p. 268) indeed implies that the refreshing sharpness and preservation which he justly claims for them may help them to raise our opinion of Hittite art, known hitherto mainly from weathered and defaced examples. But more can be claimed for them even than that. Admittedly the neo-Assyrian influence is obvious; and their resemblance to the late sculptures of Sinjerli (notably those of Hilani III, and the stela of Esarhaddon) can be traced even in minute details. Yet a close study of the dado-sculptures (the sphinx column-base I leave completely on one side) reveals at least one feature which is highly original—indeed I believe unique in Hittite art—namely, a special treatment of the human face, and allied with this, a singularly delicate conformation of sculptural style to the architectural lay-out.

1. *Treatment of the human face.* The sculptures in question are well known, and I need only refer, for their subjects and general appearance, to the photographs in *Liverpool Annals*, Vols. I and V, *Land of the Hittites*, Pls. LXXX, LXXXI, or *Hittite Empire*, Fig. 29 and Pls. XLVII-XLIX. A sharper reproduction of Pl. XLIX (upper)—the view most important for our purpose—forms Abb. 242 of the *Ausgrabungen in Sendschirli*. Here, indeed, the feature to which I wish to draw attention is so clear—

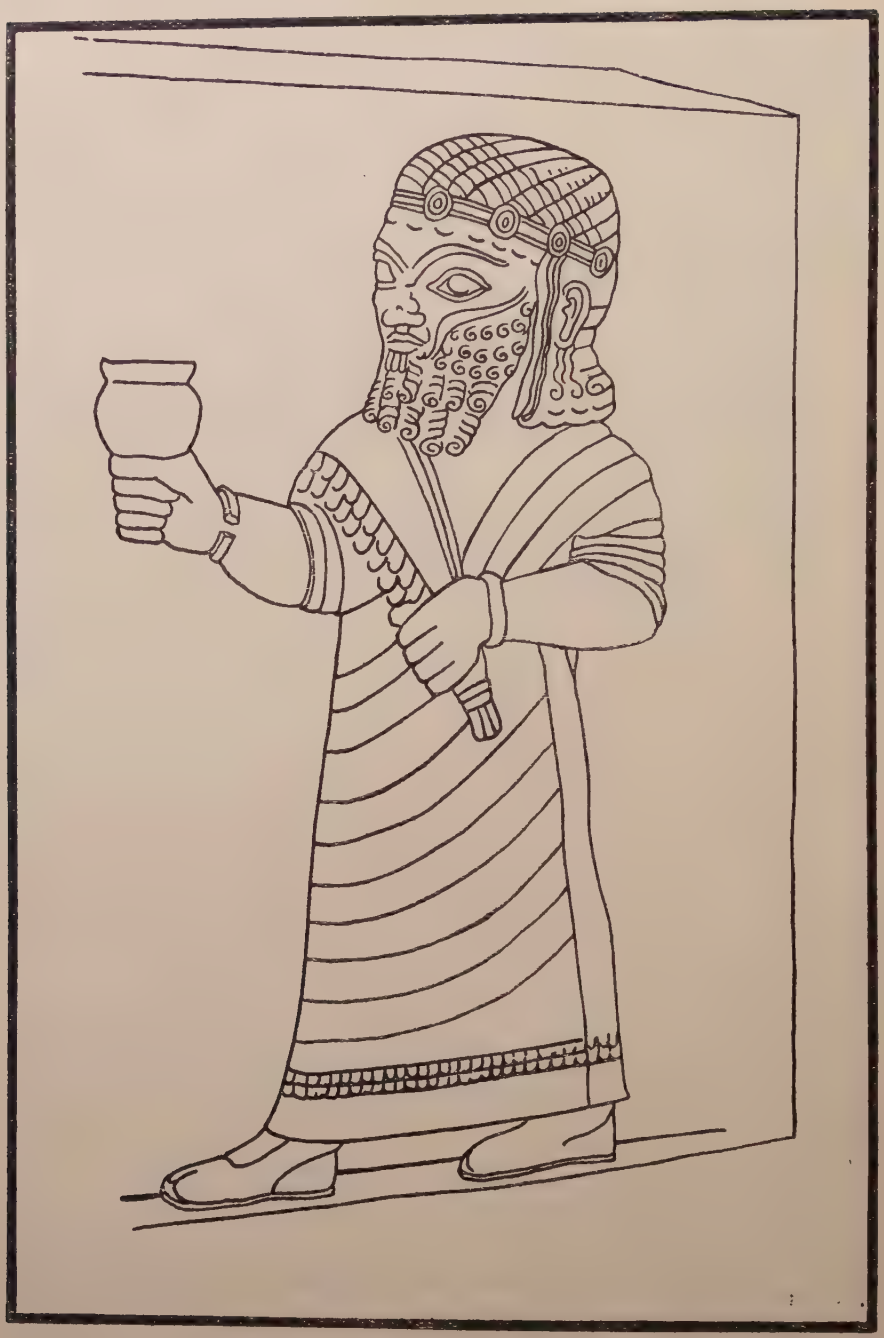

Fig. 1.—PRIEST-KING FROM LEFT-HAND FLANKING WALL OF THE PALACE PORTICO, SAKJEGEUZI. Scale *circ.* 1 : 5.

though very small—that one wonders how it has escaped observation. Briefly it is this, that the two human heads on the side-walls (those of the man-headed sphinx and the priest-king) are not in the usual low-relief pure profile, but partly in the round, being turned outwards on the neck so as to show the whole mouth and nose and both eyes. The king (Figs. 1 and 2) [1] is of peculiar interest. To the incongruity, so familiar in much ancient art, of lower limbs in pure profile and trunk and arms in full front view, he adds a three-quarter view face. Yet the general effect is unexpectedly realistic and pleasing, despite additional minor inaccuracies in the facial planes. The head, moreover, inclines slightly sideways over the shoulder, as well as turning outwards from the stone, thus setting the face at such an angle to the background that its greater breadth at the brows does not involve undercutting of the lower cheek and chin

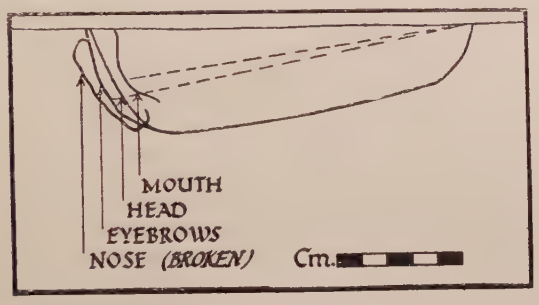

Fig. 2.—Plan of head of Priest-king from above.

(Fig. 2). The pose of the body, with one hand—in this case the left—grasping the fringed and tasselled corner of a garment draped over the right shoulder, appears on several orthostats from Hilani III at Sinjerli (cf. *Ausgr.*, Tafel LVIII); but in our figure the folds of the drapery on the left shoulder seem to harmonise the frontally-viewed body and three-quarter head, and there is almost a suggestion of foreshortening about the right forearm. The sphinx, being in pure profile except for the face, which, like the king's, looks out at an angle of about 12°, is less noteworthy.

No similar treatment of the human figure appears to have been recorded in Hittite art, and it argues a degree of originality in the Sak-

1. My thanks are due, for Figs. 1 and 2, to the Liverpool Free Public Museums for permission to publish the sculpture afresh, and to Miss M. Ratcliffe for her kindness in making the drawings; for permission to use the original plan on which Fig. 3 is based I have to thank Professor Garstang.

jegeuzi sculptor for which he has not hitherto received credit. There was indeed found at Sinjerli a carving which might have given him a hint, in the form of a corner-block with a sphinx which shows three-quarters of its face. But, if he saw this block,[1] he has greatly bettered his instruction ; for the sphinx has the rigid straight-ahead pose of the usual corner figures, and the three-quarter facial effect is obtained merely by cutting away the block at an unusual angle (*Ausgr.*, Tafel LV and Abb. 62).

2. *Adaptation to the architectural lay-out.* This point I wish to stress, since it is unfortunately obscured in the only existing casts of the sculptures, now in the Liverpool Free Public Museums. The casts were taken from the sharpest figures on *both* sides of the portico, and thus, though individually excellent, cannot be combined into an exact representation of either wing-tower.

Neither the photographs already referred to, nor the plan (Fig. 3), however, can fully bring out the refinements in the adaptation of the sculptures to their architectural relations—refinements both technical and, so to speak, psychological. In both aspects the artist has, as it were, opened on the outside *fortissimo*, with his menacing corner lions with forepart in the round, and has contrived a gradual *diminuendo* towards the interior of the building. The hindparts of the lions themselves extend in relief along the side of the corner stones, and here, next to the actual *Rundskulptur*, comes the highest relief (max. projection 7 cm.). The sphinx, immediately behind, has a maximum projection of 6·5 cm. ; the royal figure only attains to 4·3. His attendants round the corner, in conventional profile, are in shallower relief still. There is a similar diminution inwards of characterisation and interest. The newcomer from the outside world is confronted as he draws near by the ' snarling defiant realism ' of the guardian lions with their threatening glare ; passing out of their field of vision as he mounts the steps, he meets in turn the gaze of the mythical monster and the perhaps all-too-real local potentate. But the sphinx is benign enough, and the king-priest positively affable—makes even a hospitable gesture with a wine cup. And once safely inside the courtyard, there is nothing to excite emotion or even much interest in the royal suite, carved in the safe monotony of pure profile and low relief. The designer of such a scheme was no mean artist ; and I am glad that Professor Myres agrees with me in absolving him from responsibility for

1. Its history is uncertain (see *Ausgr.*, p. 331, and Pottier, *Syria* 2, pp. 21-2), and it perhaps was not visible in his time.

the thoroughly commonplace Assyrian scenes (genius, fertilisation of sacred tree) on the outer walls.

These refinements may gain a further interest when we recall von Luschan's comment on the contemporary sculptures of Barrekub's reign at Sinjerli: 'they display striking affinities with the most ancient art of the Greeks, in whose development North Syria has indeed had a very much greater share than is commonly admitted' ('sie zeigen uns dafür

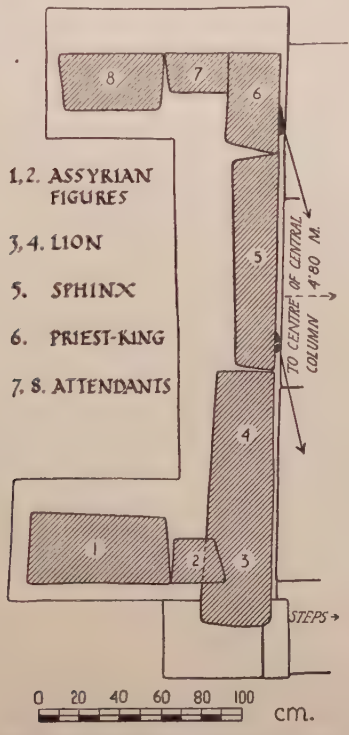

Fig. 3.—Dado-sculptures of left-hand side of palace portico, Sakjegeuzi.
Arrows show angle of outlook of figures.

auffallende Anklänge an die älteste Kunst der Griechen, an deren Entwicklung das Nördliche Syrien wohl sehr viel grösseren Anteil gehabt hat, als gemeinhin angenommen wird,' *Ausgr.*, p. 346). To which Pottier adds: 'Ce n'est pas la première fois, d'ailleurs, que l'on note la filiation des statues assises des Branchides, des plus anciennes colonnes sculptées d'Ephèse et des reliefs d'Assos avec la sculpture orientale. Mais parmi ces Orientaux, ceux qui avaient le plus étroit contact avec les Ioniens, n'etait-ce pas les Hittites ?' (*Syria*, 2, pp. 100-1).

REVIEWS

A History of Olynthus. By Mable Gude, Ph.D.

Excavations at Olynthus. Part V : Mosaics, Vases, and Lamps of Olynthus found in 1928 *and* 1931. By David M. Robinson, Ph.D., etc., with Chapters by G. E. Mylonas, J. Walter Graham and A. Xyngopoulos. *Part VI : The Coins found at Olynthus in* 1931. By David M. Robinson, Ph.D., etc. *Part VII : The Terracottas found at Olynthus in* 1931. By David M. Robinson, Ph.D., etc. The John Hopkins University Studies in Archaeology, Nos. 17, 18, 19, 20. Baltimore : The Johns Hopkins Press. London : Humphrey Milford. 1933.

The publication of the results from Olynthus continues apace.

The chief interest of Part V lies in the descriptions and the adequate coloured reproductions in Chapter I of the mosaics. These are thought to date from the 5th and early 4th centuries B.C., and comprise mythological scenes as well as decorative designs all executed in natural pebbles. They are set in a layer of buff or reddish-buff cement, the whole bedded on a heavy foundation of cement mixed with large stones. The colours employed were mainly black and white, but green, red, yellow, pink, and purple pebbles were also used, as well apparently in the earlier as in the later examples.

A good deal of interest will be found in Professor Mylonas' description in Chapter II of the local pottery—that which antedates the Persian destruction of the city in 479 B.C., in Mr. Graham's classification in Chapter VII of the lamps, both local and imported, and in M. Xyngopoulos' account of the Byzantine pottery in Chapter VIII. But the great bulk of the book—Chapters III-VI, pp. 64-264—consists of a catalogue of the classical sherds found, and here it seems that some compression might usefully have been attempted and, if achieved, might have reduced the rather excessive price of the volume ($15 ; 79s.). It is, of course, very much less trouble not to bother about scales when taking photographs, but that trouble would have been amply repaid in the saving of the expense of printing the dimensions of all the unimportant as well as the important pieces. Nor does it seem that find-spots, unless they have significance, should be allowed to escape from the excavator's note-book. The discussion of the important pieces is, as we expect from Professor Robinson, fully adequate. The bulk of the finds comes, of course, after the great days of Attic vase painting. Nevertheless the

uniformly poor quality, with rare exceptions, of the wares imported to Olynthus is striking.

Parts VI and VII, the coins and terracottas, found in 1931, taken together with Parts III and IV, those found in 1928, present a complete and valuable account on the one hand of the coins found and the implied trade relations, and on the other of the figurines and plastic vases of a provincial Greek city from some date in the 6th century B.C. down to the final destruction of the city in 348 B.C. The text is again learned and adequate, though that of Part VII does not comment on the fact that no Greek terracottas were found of earlier date than the 6th century, or on the bearing that that fact might have on the question of the date of the founding of the city by the Bottiaeans.

The illustrations of these three volumes, though they lack nothing in quantity, leave much to be desired in quality, with the exception of the colour plates in Parts V and VII. The half-tone plates in the terracotta volume are indeed shockingly bad. Accordingly the prices of Parts VI and VII (52s. 6d. and 45s. respectively) also seem excessive—not, indeed, for the new knowledge told but for the quality of production.

The *History of Olynthus* is the product of a great deal of hard work on which Dr. Gude is to be congratulated. It contains, besides, a straightforward account of what is known of the history of the city, divided into an Introduction down to 479 B.C.; Chapter I, the Chalcidians, 479-401 B.C.; Chapter II, the Olynthians, 401-348 B.C.; and Chapter III, Epilogue, Post 348 B.C.; a Prosopographia, including all the Olynthian names that the author has been able to find in literature, in inscriptions, or on coins, and a chapter of Testimonia, which include quotations of almost all passages in literature that mention Olynthus. These are culled from forty-one authors from Herodotus down to Libanius—a formidable list.

J. P. Droop.

Old Age among the Ancient Greeks. By Bessie Ellen Richardson, Ph.D. The Johns Hopkins University Studies in Archaeology, No. 16. Pp. xvi+376, Figs. 1-27. Baltimore: The Johns Hopkins Press. Humphrey Milford, Oxford University Press. *Price* 24s.

A very great deal of work has undoubtedly been put into this study. Greek literature has been exhaustively searched to show the Greek attitude to old age in its different aspects. These chapters are followed by others dealing with representations of the old in works of art, vases, sculpture (naturally including a good many portraits), terracottas, coins and gems; and the book is concluded by two chapters: one on outstanding instances of longevity, the other on the average duration of life among the Greeks on the basis of inscriptional evidence. A concordance to literary passages, a concordance and index to art, and a list of the inscriptions used in Chapter XIII are added in Appendices and make the book complete. The only criticism in detail that I should feel drawn

to make concerns a very minor point in the chapter on aged Silens and Centaurs; for I doubt if baldness in a satyr is ever alone to be taken as a sign of age, and to my mind those shown on Figs. 24 and 25 are not meant to be elderly.

But the book makes dull reading. It could hardly be otherwise, for it appears that views on old age have not changed much, and the Greek attitude is shown to have been precisely what we should expect. It would seem an achievement to find anything that looks like an omission from this book, but one point occurs to me that the author might have made, namely, that the old men of ancient Greece shared with those of to-day a liking for the fashions of their youth. On Makron's vase drawing of the rape and return of Helen the young men have short hair, but the old men wear it long, tied in a knot as they wore it when young, as may be seen by comparing Euthymides' vase of the rape of Korone by Theseus.

The illustrations are adequately reproduced and the book is well got up; but, whether it follows the normal American usage or is due to a printer's error, I dislike the unscholarly division of the word 'rep-resented' (p. 1). J. P. Droop.

Corpus Vasorum Antiquorum. University of Michigan Fascicule 1 (U.S.A. Fascicule 3). By Wilhelmina van Jugen. Harvard University Press. London: Humphrey Milford, 1933. *Price* 20s.

This is a good individual number of the Corpus produced by the *Union Académique Internationale*, good not so much in the intrinsic value of the vases dealt with—the value of the publication does not depend on this but on the completeness at which the Corpus aims, and it is therefore a thousand pities that political animosities ruled out German participation in the undertaking—but good in the supreme excellence of the photography and reproduction, which it would seem can hardly have been surpassed in a series that has been remarkable for good photography. Noteworthy is the neat and effective device for showing clearly the restored portions of a vase (Plates IV, 1-3; XI, 1-3; and XII, 1).

Points to criticise in the commendably brief text are hard to find, but three 'Samian' vases (XLVI, 2, 3, and 8) are called out of their proper shapes. They are not Dragendorff 31. Nos. 2 and 3 are Dragendorff 18, and No. 8 a Dragendorff 18/31. The mistake is odd in respect of Nos. 2 and 3, for the passages referred to in the text make it clear that Form 31 was not evolved till after the date of these vases, which is fixed by their potters' stamps.

I may be pardoned for thinking that the most interesting vase in the collection is the early form of Lakaina—an example in late Laconian Geometric—though its decoration is badly damaged, as so often happens with this delicate fabric. J. P. Droop.

Photographs of Casts of Persian Sculpture of the Achaemenid Period, mostly from Persepolis. 12 Plates. London: The British Museum. 1932.

The moulds from which the casts illustrated in these twelve collotype plates were made were obtained by an expedition sent to Persepolis as long ago as 1891. It is an excellent thing that they should now at last be made more widely known, for they are of great interest as showing a fairly continuous development in Persian relief carving over a period of two hundred years from the late sixth century B.C. to the late fourth, in the earlier stage of which—in the 'Throne Relief,' for example—certain affinities with the reliefs of Southern Ionia may be discerned. The photography is very good. J. P. Droop.

Mexico before Cortez. By J. Eric Thompson. Pp. i-x+1-298; Plates I-XXXIII. New York and London: Charles Scribner's Sons.

This pleasantly written account, giving in less than 300 pages the main outlines of what is known of the Aztec civilisation, is admirably suited to be an introduction to a deeper study of the fascinating people whom the Spaniards found in Mexico. The account is clear and well arranged and the illustrations are well chosen, and for those whom the book persuades to go further a useful bibliography is added.

J. P. Droop.

Les Arts Anciens d'Amérique au Musée Archéologique de Madrid. By Henri A. Lavachery. Pp. 7-128; Plates 1-51. Editions 'De Sikkel.' Rue du Kruishof 223, Antwerp.

Monsieur Lavachery has done a good work in publishing a number of the American works of art in the Madrid Archaeological Museum that are to be dated before the discovery of America by Columbus, and in endeavouring to supplement by comparisons and analogies the very scanty information which the records of the Museum afford about a collection which came into its possession for the most part with very insufficient documentation. The arrangement is so far as possible geographical and the work should be of great value to students of American archaeology. It must be confessed that to the layman the elements of a great art are hardly to be discerned in most of the objects illustrated in which the grotesque and the conventional seem to predominate, but exceptions must be made in the case of the Maya mask (Plate 13) and of the vase from Peru (Plate 43) in the form of a llama lying on its side with its legs tied. The broad, simplified treatment has made this figure alive in the same way as the dog on the Mochlos lid is alive. As M. Lavachery says: *Les formes sont ramenées à leurs masses essentielles. C'est la vie magnifiée par la grandeur d'un style.* J. P. Droop.

The Art of Egypt through the Ages. Edited by Sir E. Denison Ross, C.I.E., etc. The Studio Ltd. *Price* £2, 2s. net.

The Studio is to be commended for its enterprise in publishing a picture book of Egyptian art. While Classical art has been studied intensively, Egyptian art has hitherto been seriously neglected by students both of art and archaeology. Greek art and Egyptian art are alike in that, beginning from the same primitive foundations, they display a continuous growth through maturity to decline; but while Egyptian art developed consistently as it had begun, Greek art diverged at an early stage from the straight line of development and thus influenced the history of art throughout the civilised world. This fact, though of extreme importance in the study of art history, is generally little appreciated, and it is therefore only vaguely suggested in the text of the book. In these circumstances it may be worth while to attempt to explain shortly the fundamental differences of principle between the art of the present day and that of Ancient Egypt, though in the space of a few paragraphs it is only possible to state a thesis without adducing proofs.

Art is a form of expression. Verbally an artist may express his thoughts in many different languages and may be understood by all who know the language which he uses. So, when he expresses himself in terms of art, an artist may use any language, any formula of expression which he chooses. From the Renaissance to recent times one formula has been accepted and the rules for its application have been consistently developed.

When an artist draws a cube he translates its three dimensions in terms of two. He knows that it possesses depth as well as height and width, but by applying the laws of perspective—that is, by reproducing the object as his eye sees it at any given moment—he can express its depth in a single plane. His work is photographic in that he reproduces objects as his eye sees them, though his art differs from photography because his hand does not reproduce all that his eye sees.

The man in the street accepts a picture drawn in this way because his own eyes tell him that it is right. He does not, however, realise that another formula may be equally right; that an artist may express things in a strange language which would be equally intelligible to him if he would but take the trouble to learn it. When he comes in contact with an art such as Ancient Egyptian, which employs another formula, he assumes that objects are wrongly drawn (according to his standards) as a result of the artist's ignorance. The Egyptian artist was certainly ignorant of the modern formula which had not in his day been worked out, but he had a perfectly logical and consistent formula of his own. An artist must of necessity employ a formula or system of conventions if he is to represent three dimensional objects in a single plane, and that

formula must be intelligible not only to himself but to his fellows unless he is content to speak to deaf ears.

The ancient Egyptian draughtsman when he wished to draw a man did not hire a model and attempt to reproduce what lay before his eyes. Instead, he analysed a typical man in his mind and produced a representation which embodied all the characteristic aspects of man: the head in profile and the eye in front view, the chest in front view but the legs in profile. He did not employ perspective as we know it, yet Egyptian art had a perspective of its own and it could represent armies of men, herds of animals and flocks of birds. The manner of representation, though not naturalistic, was not incompatible with observation of nature. In animal drawing especially, the accumulation of characteristic aspects in a single representation, though unnatural in fact, is often convincingly natural in its effect.

It is important that the existence of this formula should be recognised, for its observance is not limited to Egypt but is universal in all primitive art. The modern formula, on the other hand, came into existence in Greek art of the fifth century B.C. It had some little influence abroad, but did not attain to general observance until the Renaissance. This period, with its thirst for knowledge, favoured the framing of scientific laws, and the problems of perspective offered an attractive field to artists who were often scientists as well as craftsmen. The formula once established appealed to the layman because, although he might not fully understand the laws of its application, he could at least appreciate its results, since they coincided with the evidence of his own eyes. His acceptance of the formula has been confirmed in recent years by his familiarity with photographic reproductions in books and newspapers. The modern child, on the other hand, untrained in the rules of art and less familiar than his father with pictures and photographs, chooses of his own accord the primitive formula. It is spontaneous, the other is acquired. Like the ancient Egyptian, the child draws things not as he sees them but as he knows them. He draws from a mind picture even when a model lies before him.

The question of art formulae is of especial importance at the present time. The sincere modern artist is trying to find a new formula, to express himself in a new language. He may succeed—if a second formula may be acquired, why not a third ?—but his success will not be recognised until his critics have learned his language. Moreover, his serious efforts are hampered by the fact that his less scrupulous brethren are content to lay claim to success when they have adopted a hotch-potch of assorted styles. They pretend to have invented a new language when they have merely acquired a knowledge of Esperanto.

It is to be hoped that the book will have a wide circulation and so extend beyond the ranks of archaeologists an intelligent interest in Egyptian art. It is very well produced; the type is clear, the pages well designed and the text readable. The plates are admirably selected to

cover the field of applied as well as fine art. One may perhaps criticise the darkness of some of the collotypes. In the case of sculpture the effect is frequently dramatic but at the expense of detail, and in the case of architecture the treatment is definitely misleading. Egypt is a land of sunlight not of mystic darkness. This criticism does not apply to the many plates of Muslim architecture, which are reproduced in half-tone. From these the student of design may learn how to display a wealth of ornament without ostentation, how to balance masses of rich detail with large expanses of plain surface.

A few misprints have escaped notice. On page 90, 1, the Palette of Narmer is labelled Stela of the Serpent King; page 40 gives stutues for statues, and page 185, 2, Anhotep for Ahhotep. Despite these slight flaws, the Studio is to be congratulated both on its undertaking and on the manner of its execution.

E. TANKARD.